

**Amendments to the Claims**

Please cancel Claim 2. Please amend Claims 1, 13, 18, 19 and 21-24. The Claim Listing below will replace all prior versions of the claims in the application:

**Claim Listing**

1. (Currently amended) An apparatus for adding and removing liquid reagent to and from a sample comprising:
  - a ~~flat surface~~ microscope slide supporting the sample;
  - a chamber forming a cavity over said ~~flat surface~~ microscope slide, said chamber being releasably sealed to said ~~flat surface~~ microscope slide;
  - a fluid port in the wall of said chamber through which fluids can be added or removed;
  - a valve comprising a moveable valve element, wherein said valve ~~that is~~ positioned at the fluid port, said valve capable of opening, to admit fluid through the port into the chamber, and closing;
  - a conduit through which a source of negative or positive air pressure can be communicated;
  - a member associated with the conduit capable of moving the moveable valve element to opening said valve to admit fluid through the port into the chamber ~~and through which a source of negative or positive air pressure can be communicated~~; and
  - an actuator capable of causing relative movement between the fluid port and conduit to engage said conduit and fluid port to each other so that the two are in fluid communication with each other.
2. (Canceled)
3. (Previously presented) The apparatus as recited in claim 1 wherein more than one fluid port is located in the wall of said chamber.

4. (Previously presented) The apparatus as recited in claim 3 further comprising a second conduit through which a liquid can be communicated to at least one of said fluid ports.
- 5-9. (Canceled)
10. (Previously presented) The apparatus as recited in claim 1 wherein the fluid port further comprises a reagent well capable of holding an aliquot of reagent prior to the reagent passing into the cavity.
11. (Canceled)
12. (Previously presented) The apparatus as recited in claim 1 comprising multiple chambers, the chambers and actuator moving relative to each other to position a selected chamber at the actuator.
13. (Currently amended) An apparatus for adding liquid reagent to and from a sample comprising:
  - a ~~flat-surface~~ microscope slide supporting the sample;
  - a chamber forming a cavity over said ~~flat-surface~~ microscope slide, said chamber being releasably sealed to said ~~flat-surface~~ microscope slide;
  - a fluid port in the wall of said chamber through which fluids can be added, said fluid port further comprising a reagent well capable of holding an aliquot of reagent prior to the reagent passing into the cavity;
  - a valve comprising a moveable valve element, wherein said valve ~~that is~~ positioned at the fluid port, said valve capable of opening, to admit fluid through the port into the chamber, and closing;
  - a conduit; and
  - a member associated with the conduit capable of moving the moveable element to ~~opening~~ said valve to admit fluid through the port into the chamber.
- 14-16. (Canceled)

17. (Previously presented) The apparatus as recited in claim 13 comprising plural fluid ports in the wall.
18. (Currently amended) The apparatus as recited in claim 13 wherein the reagent well is conical and is adapted to seal against ~~[[a]]~~ the conduit moved into position against the well.
19. (Currently amended) An apparatus for adding and removing liquid reagent to and from a sample comprising:
  - a ~~flat surface~~ microscope slide supporting the sample;
  - a chamber forming a cavity over said ~~flat surface~~ microscope slide, said chamber being releasably sealed to said ~~flat surface~~ microscope slide;
  - a fluid port in the wall of said chamber through which fluids can be added or removed;
  - a valve comprising a moveable valve element, wherein said valve ~~that is~~ positioned at the fluid port, said valve capable of opening, to admit fluid through the port into the chamber, and closing;
  - a conduit through which a source of negative or positive air pressure can be communicated;
  - an actuator capable of causing relative movement between the fluid port and conduit to engage said conduit and fluid port to each other so that the two are in fluid communication with each other; and
  - a piston in the conduit capable of moving the moveable valve element to opening ~~the valve~~ to admit fluid through the port into the chamber when the conduit and fluid port are in communication with each other.
20. (Previously presented) The apparatus as recited in claim 19 wherein the fluid port further comprises a reagent well capable of holding an aliquot of reagent prior to the reagent passing into the cavity.

21. (Currently amended) The apparatus as recited in claim 20 wherein the valve comprises a flexible element ~~below the port~~.
22. (Currently amended) The apparatus as recited in claim 21 wherein the flexible element is an extension of a gasket of the chamber which seals against the ~~flat surface~~ microscope slide.
23. (Currently amended) An apparatus for adding liquid reagent to and from a sample comprising:  
a ~~flat surface~~ microscope slide supporting the sample;  
a chamber forming a cavity over said ~~flat surface~~ microscope slide, said chamber being releasably sealed to said ~~flat surface~~ microscope slide;  
a fluid port in the wall of said chamber through which fluids can be added, said fluid port further comprising a reagent well capable of holding an aliquot of reagent prior to the reagent passing into the cavity;  
a valve comprising a moveable valve element, wherein said valve ~~that is~~ positioned at the fluid port, said valve capable of opening, to admit fluid through the port into the chamber, and closing; and  
a flexible membrane in said valve ~~below said fluid port~~, the flexible membrane being adapted to be opened by a piston extending through the fluid port.
24. (Currently amended) The apparatus as recited in claim 23 wherein the flexible element is an extension of a gasket of the chamber which seals against the ~~flat surface~~ microscope slide.